Drinking Water Quality Report

Year 2010 Data

FORT WORTH®
WATER

Where We Get Our Water & What's In It

Fort Worth uses surface water from Lake Worth, Eagle Mountain Lake, Lake Bridgeport, Richland Chambers Reservoir, Cedar Creek Reservoir and the Clear Fork Trinity River (from Lake Benbrook).

Fort Worth owns Lake Worth. The U.S. Army Corps of Engineers is responsible for Benbrook Lake. The other four lakes are owned and operated by Tarrant Regional Water District (TRWD).

As water travels over the land or through the ground, it dissolves naturally occurring minerals and radioactive material. Water also can pick up substances resulting from animal waste or human activity.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate the water poses a health risk.

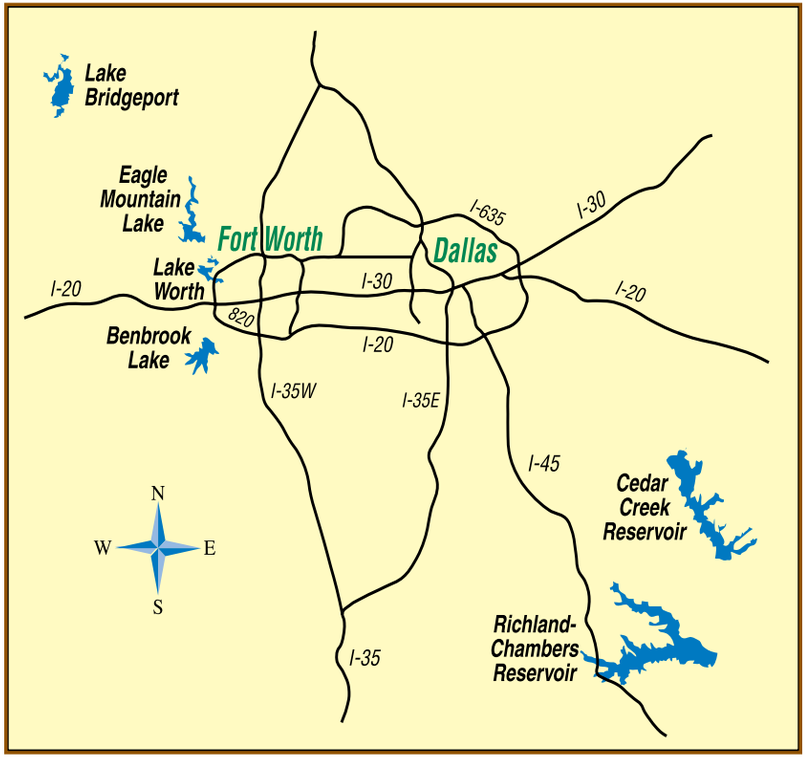
Contaminants that may be present in source water before treatment include microbes, inorganic contaminants, pesticides, herbicides, radioactive materials and organic chemical contaminants.

In addition, contaminants may be found in drinking water that may cause taste, color or odor problems. These types of problems are not necessarily causes for health concerns. For more information on taste, odor or color of drinking water, please contact us at 817-392-4477 or wpe@FortWorthGov.org.

To ensure tap water is safe to drink, the U.S. Environmental Protection Agency (EPA) and the Texas Commission on Environmental Quality (TCEQ) regulate the amount of certain contaminants in water provided by public systems.

A Source Water Susceptibility Assessment for your drinking water sources is being updated by TCEQ. This information describes the susceptibility and types of contaminants that may come into contact with your drinking water source, based on human activities and natural conditions. The information contained in the assessment allows us to focus our source water protection strategies. Some of this source water assessment information will be available on Texas Drinking Water Watch at http://dww.tceq.state.tx.us/DWW.

For more information on source water assessments and protection efforts at our system, please contact us.



Did you know?

The Eagle Mountain Water Treatment Plant was the first in Texas to use ozone for primary disinfection. It opened in 1993. By the summer of 2012 Fort Worth will utilize ozone disinfection at all its plants.

Cryptosporidium Not Detected; Some People More Susceptible

TRWD monitors the raw water at all intake sites for Cryptosporidium, a microbial parasite common in surface water. The source is human and animal fecal waste in the watershed.

The 2010 monthly testing did not detect any in our water supply sources; however, we are still required to publish the following information.

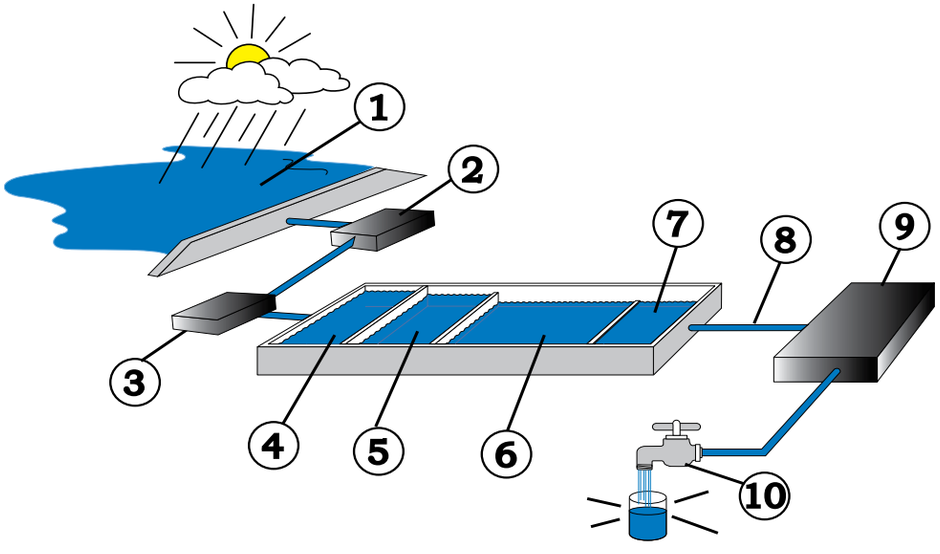
You may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. Infants, some elderly or immunocompromised persons, such as those undergoing chemotherapy for cancer, those who have undergone organ transplants, those who are undergoing treatment with steroids and people with HIV/AIDS or other immune system disorders can be particularly at risk from infections.

You should seek advice about drinking water from your physician or health care provider.

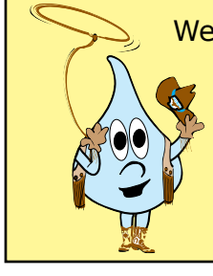
Additional guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Making Raw Water Drinkable

1. Reservoirs: Fort Worth water comes from six lakes.
2. Raw Water Pump Station: Here water is pumped from the lake to the water treatment plant.
3. Primary Disinfection: Either ozone or monochloramine (chlorine and ammonia) is added to kill bacteria and viruses. The Eagle Mountain and Rolling Hills water treatment plants use ozone. The North Holly and South Holly water treatment plants use monochloramine.
4. Mixing Chamber: Chemicals, called coagulants and polymers, are added to the water to cause small particles to adhere to each other.
5. Coagulation Basin: The particulate matter begins to clump together.
6. Sedimentation Basin: Particles settle to the bottom of the basin and are removed.



7. Filters: Water is filtered through four feet of coal, sand and gravel.
8. Disinfection: Chloramine is added to provide disinfection all the way to your faucet. The chlorine kills bacteria and viruses. Ammonia is added to reduce the chlorine odor and the amount of chlorine by-products created.
9. Clearwell Storage: Water is temporarily stored in tanks before it is pumped to the public.
10. Distribution: Drinking water reaches the public through more than 3,600 miles of pipeline.



We welcome the opportunity to speak to neighborhood groups and civic organizations about water topics, such as drinking water quality, efficient water use or ways to keep grease out of the sewer system. Just contact us by phone or e-mail to make arrangements.

wpe@FortWorthGov.org
817-392-7240

Fort Worth
Water Department

817-FW-24-HRS
(817-392-4477)

wpe@FortWorthGov.org

www.FortWorthGov.org/water

www.savefortworthwater.org

Administrative Office:
Fort Worth City Hall, 2nd Floor
1000 Throckmorton St.

The Water Department is part of the Fort Worth city government. The City Council meets each Tuesday at City Hall, 1000 Throckmorton St. The meetings are at 7 p.m on the 1st & 2nd Tuesday of the month. The meetings are at 10 a.m. all other Tuesdays. Check the calendar online to make sure a meeting isn't cancelled or rescheduled.

Mailing this report to our customers is a federal and state requirement. It also is posted on our website. If you would like additional copies, call or e-mail us.

Only Tap Water **Delivers**

...public health protection
...fire protection
...support for the economy
...the overall quality of life we enjoy

American Water Works Association

Water Quality Test Results

Contaminant	Year of testing	Measure	MCL	2010 Level	Detection Range	MCLG	Common Sources of Substance
Beta particles & Photon emitters	2005	pCi/L	50	6.6	4.6 to 6.6	N/A	Decay of natural and man-made deposits of certain minerals that are radioactive and may emit forms of radiation known as photons and beta radiation
Fluoride	2010	ppm	4	0.82	0.67 to 0.82	4	Water additive that promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories
Nitrate (measured as Nitrogen)	2010	ppm	10	0.30	0.04 to 0.30	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (measured as Nitrogen)	2010	ppm	1	0.031	0.005 to 0.031	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Bromate	2010	ppb	10	8.75	0 to 8.75	0	By-product of drinking water disinfection
Haloacetic Acids	2010	ppb	60	23.6	9.5 to 23.6	N/A	By-product of drinking water disinfection
Total Trihalomethanes	2010	ppb	80	49.0	9.9 to 49.0	N/A	By-product of drinking water disinfection
Total Coliforms (including fecal coliform & E. coli)	2010	% of positive samples	Presence in 5% of monthly samples	Presence in 0.8% of monthly samples	0 to 0.8%	0	Coliforms are naturally present in the environment as well as feces; fecal coliforms and E. coli only come from human and animal fecal waste.
Turbidity	2010	NTU	TT	0.42 Highest single result 99.7% Lowest monthly % of samples ≤ 0.3 NTU	N/A	N/A	Soil runoff

Contaminant	Year of testing	Measure	MRDL	2010 Level	Detection Range	MRDLG	Common Sources of Substance
Chloramines	2010	ppm	4	3.5	2.1 to 4.3	4	Water additive used to control microbes

Contaminant	Year of testing	High	Low	Average	MCL	MCLG	Common Sources of Substance
Total Organic Carbon	2010	1	1	1	TT = % removal	N/A	Naturally occurring

Turbidity is a measure of the cloudiness of water. It is monitored because it is a good indicator of the effectiveness of the filtration system.

Total Organic Carbon is used to determine disinfection by-product precursors. Fort Worth was in compliance with all monitoring and treatment technique requirements for disinfection by-product precursors.

MCL: Maximum Contaminant Level – the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MCLG: Maximum Contaminant Level Goal – the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

MRDL: Maximum Residual Disinfectant Level – the highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG: Maximum Residual Disinfectant Level Goal – the level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

N/A – Not Applicable.

NTU – Nepholometric Turbidity Unit; a measure of water turbidity or clarity.

pCi/L – Picocuries per liter; a measure of radioactivity.

ppb – Parts per billion or micrograms per liter (g/L).

ppm – Parts per million or milligrams per liter (mg/L).

TT: Treatment Technique – a required process intended to reduce the level of a contaminant in drinking water.

Did you know?

The Fort Worth Water Department tests your drinking water for more than 100 different contaminants. Only those detected are listed in this report.

What You Should Know about Lead in Drinking Water

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Fort Worth drinking water does not have elevated lead levels.

Lead in drinking water is primarily from materials and components associated with service lines and home plumbing.

The city of Fort Worth is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components.

When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to two minutes before using water for drinking or cooking.

If you are concerned about lead in your water, you may wish to have your water tested. The Fort Worth Water Department Laboratory offers lead and copper testing to our customers. The cost is $15 per sample for lead testing and $15 per sample for copper testing. Call 817-392-4477 to make the arrangements.

Information on lead in drinking water, testing methods, and steps you can take to minimize your exposure is available from the Safe Drinking Water Hotline at 800-426-4791 or at www.epa.gov/safewater/lead.

Contaminant	Year of testing	Measure	90th percentile	# of sites exceeding action level	Action Level	Common Sources of Substance
Lead	2009	ppb	4.9	0	15	Corrosion of household plumbing systems; erosion of natural deposits
Copper	2009	ppm	0.39	0	1.3	

90th percentile value: 90% of the samples were at or below this value. EPA considers the 90th percentile value the same as an "average" value for other contaminants. Lead and copper are regulated by a treatment technique that requires systems to control the corrosiveness of their water. If more than 10% of tap water samples exceed the action level, water systems must take additional steps.

Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Unregulated Contaminants

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

Contaminant	Year of testing	Measure	Range of Detects	2010 Level	MCL	MCLG	Common Sources of Substance
Chloral Hydrate	2010	ppb	0.22 to 1.20	1.20	Not regulated	None	By-product of drinking water disinfection
Bromoform	2010	ppb	0 to 1.4	1.4	Not regulated	None	By-products of drinking water disinfection; not regulated individually; included in Total Trihalomethanes on Page 3
Bromodichloromethane	2010	ppb	4.1 to 22.2	22.2	Not regulated	None	
Chloroform	2010	ppb	4.1 to 23.8	23.8	Not regulated	70	
Dibromochloromethane	2010	ppb	2.8 to 12.1	12.1	Not regulated	60	
Monochloroacetic Acid	2010	ppb	2.2 to 2.5	2.5	Not regulated	70	By-products of drinking water disinfection; not regulated individually; included in Haloacetic Acids on Page 3
Dichloroacetic Acid	2010	ppb	4.3 to 19.4	19.4	Not regulated	None	
Trichloroacetic Acid	2010	ppb	0 to 7.0	7.0	Not regulated	20	
Monobromoacetic Acid	2010	ppb	0 to 1.3	1.3	Not regulated	None	
Dibromoacetic Acid	2010	ppb	1.5 to 3.8	3.8	Not regulated	None	

Secondary Constituents

This chart lists other items for which the water is tested. These items do not relate to public health but rather to the aesthetic effects. These items are often important to industrial users.

Item	Measure	2010 Range
Bicarbonate	ppm	106 to 125
Calcium	ppm	89 to 175
Chloride	ppm	12 to 28
Conductivity	µmhos/m	366 to 423
pH	units	8.1 to 8.4
Magnesium	ppm	3 to 10
Sodium	ppm	14 to 22
Sulfate	ppm	22 to 29
Total Alkalinity as $CaCO_3$	ppm	106 to 125
Total Dissolved Solids	ppm	224 to 250
Total Hardness as $CaCO_3$	ppm	103 to 194
Total Hardness in Grains	grains/gallon	6 to 11

Water Quality Info for Areas of Far East Fort Worth, Centreport

On May 4-6, 2010, the area of Fort Worth east of Greenbelt Road, including Centreport, was served by water from the Trinity River Authority's Tarrant County Water Supply Project.

This treament plant provides drinking water to Euless, Bedford, Colleyville, Grapevine and North Richland Hills.

The water source change was needed while Fort Worth repaired a leak on a 24-inch water main.

The table to the right reflects the water quality parameters that vary from those in the Fort Worth water quality as reported on Page 3 of this report.

TRA obtains it's drinking water from Lake Arlington. Flow from Cedar Creek and Richland-Chambers Reservoirs is pumped into Lake Arlington to maintain the lake level during dry periods.

Contaminant	Year of testing	Measure	MCL	2010 Level	Detection Range	MCLG	Common Sources of Substance
Barium	2008	ppm	2	0.0514	0.0514	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium	2008	ppm	0.1	0.00107	0.00107	4	Discharge from steel and pulp mills; erosion of natural desposits
Unregulated Contaminants							
Bromodichloromethane	2010	ppb	Not regulated	24.50	24.50	None	By-products of drinking water disinfection
Chloroform	2010	ppb	Not regulated	26.93	26.93	70	By-product of drinking water disinfection

Learn more about water by visiting these websites.

Tarrant Regional Water District
www.trwd.com
www.savetarrantwater.com

Environmental Protection Agency
www.epa.gov

Texas Commission on Environmental Quality
www.tceq.state.tx.us

Texas Water Development Board
www.twdb.state.tx.us
www.savetexaswater.org

American Water Works Association
www.awwa.org
www.drinktap.org

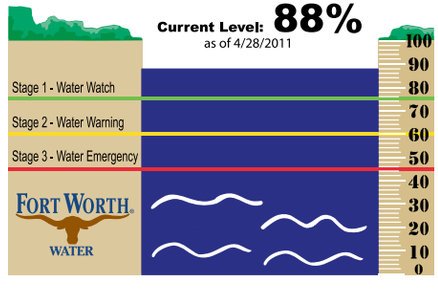
Water Environment Federation
www.wef.org

Texas Smartscape
www.texassmartscape.com

Watering Restrictions Take Effect When Lake Levels Reach 75%

Rainfall has been in short supply this year. The predictions are for a hot, dry summer as La Nina takes control of weather patterns.

Fort Worth, working with Tarrant Regional Water District, has a plan for restricting water use if lake levels fall to the triggers set in our Drought Contingency and Emergency Water Use Plan.



Stage 1 actions take effect when the lake levels drop to 75 percent. Two factors determine if and when we reach the trigger -- rainfall and customer water usage.

While we can't control rainfall, we can control how much water we use. We need to be efficient in our water use – indoors and outdoors.

Water use escalates in the summer months as we pour it on our lawns and gardens. Overwatering is a chronic problem.

The key to a healthy lawn is deep and infrequent watering. This gets grass' roots to go deep looking for water. Grass only needs an inch of water every five to seven days during the summer. That inch will go about six inches deep into the soil, sufficient for covering the root zone.

In gardens, overwatering is why most plant die.

Visit www.savefortworthwater.org for ways you can use water efficiently.